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By

WARREN F. HICKERNELL, Ph.D.

Director, Bureau of Business Conditions, Alexander Hamilton Institute. Lecturer on "Panics and Depressions," School of Commerce, Accounts and Finance, New York University. Formerly Managing Editor, Brookmire Economic Service. Author, "Methods of Business Forecasting" and Numerous Articles on Finance.



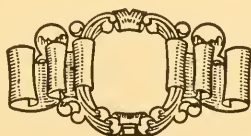
AMERICAN INSTITUTE OF FINANCE

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CHAPTER I

THE CYCLE DESCRIBED

Periods of the Cycle

The stages of the business cycle are sometimes described by dividing the trend of business conditions into four periods:

1. Business improvement—wages and profits rising.
2. Business prosperity—incomes at high tide.
3. Business reaction—incomes declining.
4. Business depression—incomes at low level.

Description of the Cycle

First Period. At the beginning of a cycle the chief features of the situation are low interest rates, a buoyant bond market, a slow demand for labor, dullness in trade and a low level of commodity prices. The active market for bonds stimulates new construction work. It is good business to carry out plans for permanent construction when long-term bonds can be sold at a low rate of interest, insuring a small fixed charge over a long period. There is an expansion of demand for iron and steel and other construction materials. The payrolls of factories and construction companies grow rapidly. The broader wage disbursements lead to heavier purchases of clothing and furniture.

Second Period. Presently, business improvement grows into pronounced prosperity. Activity becomes feverish in this period. But higher prices and enlarged trade require expansion of bank loans. When prosperity reaches the point where the credit required to finance trade exceeds the supply of loanable banking funds, the insistent bidding for funds by merchants forces interest rates to an abnormally high level. Moreover, to provide adequate loans to merchants, the banks reduce loans

on stocks and bonds. This shifting process is a danger sign in the stock market.

The high interest rates and restricted security loans kill the sale of bonds; the interest rate offered on new bonds must compete with the current market rate. Corporations are loath to issue new bonds at sacrifice prices and postpone plans for new construction work. Orders for steel for future delivery fall off, and likewise for other commodities. *When the demand for goods for future delivery falls below the productive capacity at the existing price level, there is a crisis.* The first half of the cycle is over. The crisis marks the transition from the second to the third period of the cycle.

Reaction and Depression

Third Period. The second half of the cycle, comprising the course of Reaction and Depression, is a reversal of the first half. After the crisis, demand falls rapidly. In order to avoid complete idleness, sellers of goods are forced to lower prices to effect distribution. Old debts are paid off. New commitments are made at reduced prices, so that replacements require less credit. Commercial loans are cut down. The banks accumulate a loanable surplus.

Fourth Period. In order to employ their surplus funds, the banks reduce interest rates. But they are unable to find a demand for short time commercial loans among merchants and manufacturers sufficient to absorb their surplus, even at low discount rates. They therefore lend freely upon bonds at interest rates lower than the income yield obtainable from bonds. This naturally stimulates active buying of bonds. There is an active bond market, and large corporations plan for future expansion. This situation marks the end of the cycle. It is the situation described above as marking the beginning of a new cycle.

Two factors which can usually be depended on to assist recovery during depression are an increase in gold production and a growth of efficiency in productive and inventive processes.

Gold mining becomes more profitable when low prices reduce mining costs with the selling price of gold remaining constant. Greater attention is given to the productive and inventive processes owing to stagnation in the speculative markets. Labor moves from the cities to the country in some measure when manufacturing becomes dull and this promotes agricultural industry. The latter is also strengthened by the fact that farmers work more soberly after a financial crisis. Land speculation declines, and as hopes of becoming rich through rising values vanish, more attention is given to production.

What Our Problem Is

We shall take up the analysis of the cycle from the standpoint of stock market fluctuations in a later Text—"The Search for Bargains"—showing how stock market buying and selling policy should change in the different periods of the business cycle. In the present Text we shall discuss how the general trend of each cycle is determined by a dependable principle, and that business forecasting may be reduced to a formula, which, even though not mathematically exact, is measurably scientific in nature and helpfully systematic.



CHAPTER II

OUTLINING THE PROBLEM

Meeting Friendly Skepticism

A master among university scholars of the past generation habitually challenged the originator of an academic thesis with the questions:

What have you got?

How do you know it?

What of it?

Such questions are frequently raised regarding the subject of business cycles. One prominent authority on the subject, after an exhaustive investigation, even suggests that perhaps the students of each succeeding generation will find it necessary to revise the theory of business cycles accepted by the preceding generation. We find, also, that experienced business men sometimes exhibit skepticism regarding the possibility of forecasting business conditions according to a *theory* of business cycles. Some of them believe that there are too many cross-currents in any given business situation to make it feasible to follow a systematic method of judging the future trend of business.

This attitude of skepticism, of course, is not wholly surprising. It is true that fluctuations become irregular at times owing to apparently unforeseeable accidents or disturbing cross-currents.

Why Should Cycles be Understood?

The fact that disturbing influences are always rising to confuse and perplex us in managing our financial affairs, however, is all the more reason why we should seek a systematic method of forecasting which will enable us to look ahead with positive opinion and a definite policy during periods of financial unsettlement. If confusion and uncertainty can be reduced to a negotiable minimum, that is a thing worth while.

But there are more positive and more convincing reasons for seeking a definite plan of judging the future according to a theory of business cycles. The first is that the history of the past century shows that prices and incomes have fluctuated up and down in never-ending process. The study of the subject is compulsory. It is impossible to avoid the ups and downs of the cycle.

The second is that fortunes can be built up more quickly by taking advantage of the rising tide of the cycle than by any other method. And they can be lost suddenly when the trend turns downward. Even professional speculators achieve success only when they make their commitments with due regard for the underlying trend of the cycle. Those who operate merely by intuition eventually "go broke." Probably more than half of the investors who were owners of speculative stocks during the six-month period from October, 1919, to March, 1920—perhaps over eighty per cent of them—were entirely unprepared for the drastic declines in prices which actually occurred in November and February, although, to those acquainted with the method of judging the trend of the cycle explained in the following pages, the signs of a coming slump were clearly in evidence months in advance. To depend entirely upon intuition is not a satisfactory plan.

Intuition vs. Sound Judgment

The history of the past one hundred years shows that the big swings of the cycle, though never exactly similar in different periods, are governed in each case by certain underlying principles. These principles it is possible to know and to use with profit at all times. It is agreed that exceptional circumstances are always present, and that individual judgment, based upon experience, is always necessary in estimating the influence of the cross-currents which cause irregularities in fluctuations. The conditions affecting trade and finance are complex, but the formulation of a plan of forecasting business conditions with some claim to scientific method is not difficult, provided we develop our method one step at a time.

Developing a Correct Method.

The process of developing this method must be divided into three distinct departments. These divisions of study are as follows:

1. Defining and picturing the business cycle. What statistical indexes can we follow in order to enable us to observe whether a given point in the cycle is above or below normal?
2. The dependable cause of the "normal cycle." What principal or law is always operative in every cycle, causing prosperity to develop after depression and making it certain that a crisis and a period of depression must follow every period of prosperity? And what barometers guide us in anticipating conditions?
3. The cross-currents which cause irregularity. What are the forces which disturb the normal curve of the cycle and prevent different cycles from being alike? What have been the principal cross-currents during the past century, and which of these are likely to require our attention in the next ten, twenty or fifty years?

As the first step, let us now proceed to consider the business cycle, its definition and graphic representation.



CHAPTER III

SELECTING AN INDEX OF THE BUSINESS CYCLE

What the Term "Cycle" Means

Two problems concern us in this chapter. First, what concept do we have in mind when we use the phrase, "business cycle"? Second, what statistical indexes picture the fluctuations of the cycle?

Some students of the subject with whom I have talked consider business cycles to be "price cycles." To them, a cycle of conditions in the steel industry would be depicted by a chart showing an oscillation of the prices of iron and steel. Similarly, a cycle in the oil industry would be indicated by a rise and fall in the price of petroleum. A cycle of general business would be indicated by a cycle of commodity prices as reflected, for instance, in an oscillation of Bradstreet's index.

Other students prefer to place emphasis upon production. They are interested in the physical volume of trade. A cycle in the steel and iron industry to them would be pictured in the monthly statistics of pig iron production or deliveries of finished steel. Taking business as a whole they would be more interested in the aggregate tonnage of merchandise produced and delivered for consumption than in the trend of Bradstreet's index of commodity prices.

Personally, however, when I think of the trend of the business cycle, I am not satisfied with either of these methods of charting its fluctuations. It is true, of course, that a well-informed man should know whether production is increasing or decreasing, and also whether prices are rising or falling. He should study business in all of its departments. In the actual work of forecasting business conditions, however, I believe the most profitable concept is to think of the cycle as an oscillation of the "income stream" of the community as a whole.

Prosperity depends upon the purchasing power of all classes of people in every line of business. The incomes of particular groups of people or lines of industry may be temporarily depressed while the incomes of the rest of the community are increasing enough to cause general expansion in the demand for goods. In constructing a chart of the business cycle, therefore, we should arrive at something which will show us the ebb and flow of the total income, or "spending power," of the whole community. For practical purposes income and spending power mean the same thing. People spend all they get, directly or indirectly. That part of income which is saved is deposited in the banks, where it is loaned to purchasers of goods.

Statistical Indexes

Having defined the business cycle as the upswing and downswing of the income or spending power of the community, let us seek a statistical compass, or chart, of the cycle. If we desire to chart the income of the steel industry, we must first multiply the tonnage produced by the average selling prices. For instance let us suppose that in one year the output of finished steel in the United States was 28,000,000 tons and the average selling price \$50 a ton. The total value would be \$1,400,000,000. Then suppose that in the next year the total output was 33,000,000 tons and the average selling price \$100 a ton. The total value would rise to \$3,300,000,000. Note that the price is doubled, but the value is more than doubled. The total value of the product represents the aggregate income of everybody employed in the steel industry. It measures their spending power. It also covers dividends and taxes and provides spending power to stockholders and government employees. But suppose the next year's production declines to 30,000,000 tons and prices to an average of \$40 a ton. The total value falls to \$1,200,000,000. Obviously the spending power would decrease, for this figure indicates a decline in the gross revenue available for wages, salaries and dividends.

Now, if all other industries showed proportional fluctuations in prices and production, we might take these statistics of the

steel industry as a faithful index of the trend of general business. But is this permissible? Perhaps incomes in other industries do not rise and fall in proportion. The total gross earnings in the oil, motor, copper and transportation industries might show a different trend. To be on the safe side we should try to think of *business cycles as representing the ups and downs in the total spending power of the whole community*, including professional men, bankers, brokers and merchants as well as the wage-earners in the basic industries.

Bank Clearings — A Good Index

Let us now proceed toward a selection of statistical indexes which will serve us in showing the trend of the cycle. If the cycle represents changes in spending power, we should first attempt to gather statistics of all the bank checks signed by the public and used to pay for goods bought from month to month. Fortunately, we have very satisfactory statistics of what the public does in the way of paying its bills. The "Financial Chronicle" at the end of every month publishes statistics of bank clearings which represent all the checks exchanged between banks in their daily settlements. Sometimes, of course, both the buyer and the seller in a given transaction use the same bank. In that case the check is not sent to the clearing house. Then, too, many checks are cleared at the Federal Reserve Banks. Statistics of bank clearings, therefore, do not cover the total transactions of the community.

On the other hand, some transactions reflected in clearings do not represent spending power. A good many wealthy capitalists and speculators buy huge amounts of goods, not for consumption, but to sell at a profit at an early date. The checks signed by such men represent many times their income. They continue paying out and receiving back practically the same money every week in the year, without buying and keeping anything to speak of. They merely speculate. Their transactions represent a rapid turn-over in their capital, not a true index of their incomes. This is particularly true of stock speculators in Wall Street. In fact, bank clearings in New York

City reflect speculation more than the true trend of spending for consumption.

Let us state, however, that we do not care if the aggregate of bank clearings does not exactly equal the total spending power. We are interested in the trend of fluctuations and not in calculating statistical volumes, and, for our purpose, the per cent of increase or decrease in bank clearings is more important than the amount per capita.

Let us conclude our discussion of bank clearings with the opinion that they are one of the best indexes of the fluctuations in the total income and therefore in the total spending power of the whole community.

Imports and Exports

As an index of the business cycle, statistics of "merchandise imports" have several points of merit. They represent the trend of the prices of the goods which a country is buying for consumption from foreign countries. By analyzing imports we can see whether raw materials or foodstuffs are coming from abroad in larger or smaller volume. The monthly reports of the country's imports are of continual interest to the student of Panics and Depressions.

An especial quality of imports is that they are an index of commodity prices, automatically weighted according to the quantity of each commodity purchased from abroad. Similarly, merchandise exports are also a weighted price index. They show the trend of prices of the surplus products of a country, and therefore reflect internal economic strength or weakness.

As indexes of the business cycle, however, statistics of exports and imports have one defect. In case a country is blockaded during war time, foreign trade falls to a low level. The statistics of imports and exports in that case do not tell us the true tendency of the country's national income, or total spending power.

It should also be noted that, as indexes, imports and exports differ slightly. When exports rise, it may mean that the country is shipping goods to pay debts abroad, whereas if imports are

temporarily abnormal, extravagance in the consumption of foreign goods may be indicated, and presumably the importing country is getting badly into debt. In the stress of a financial crisis, a country which has been getting badly into debt becomes embarrassed, while a country which has been selling its goods abroad and building up a strong foreign credit balance may come through the panic period with little disturbance in the money market.

In the long run, imports and exports are good indexes of the business cycle, but it is necessary to observe the qualifications above stated.

Commodity Prices

An average of the prices of important commodities is ordinarily a good index of the business cycle. The wages and profits in any industry must be covered by sale prices, and an average of the prices in all basic industries indicates the trend of the gross income of business in general.

One defect of commodity prices as an index is that they tend to seek an international equilibrium, so that the fluctuations are pretty much the same in all countries on a gold monetary basis. Because of this international similarity, fluctuations of prices do not reflect important differences in financial conditions in different countries. If we desire to ascertain how any one country is situated at the time of a financial crisis, therefore, it is necessary to study other statistical indexes which have a local color.

At the present time, of course, because of the suspension of gold payment in the largest European countries, it can truly be said that indexes of commodity prices in most of the large foreign countries do reflect local conditions. Until gold payment is resumed in England and France, the commodity price indexes of these countries, as well as sterling and franc quotations, will serve to guide us in noting the progress being made toward deflation.

Miscellaneous Indexes of Business Conditions

Under this topic we shall mention a number of statistical guides which every man should keep in touch with for their individual significance rather than as indexes of the cycle of community income. Such indexes are pig iron production, unfilled steel orders, commercial failures, immigration, and building permits.

Pig iron production is defective because it reflects only the physical volume of trade and not the aggregate money income of the country. Moreover, it reflects conditions in a particular industry and sometimes may not indicate the prosperity of the entire community. The same applies to unfilled steel orders. But the iron and steel industry is so important that it deserves special and constant consideration.

Commercial failures move inversely with a country's prosperity. When commodity prices decline, failures increase. Reversely, when prices rise, failures fall to a low level. The chief defect of failures as a guide to prosperity is that they are a little slow in coming to our observation. Such statistical indexes as bank clearings, commodity prices and foreign trade are somewhat more prompt in suggesting the cycle's trend. The liabilities involved in failures, however, would seem, theoretically, to be a good inverse index of the trend of community income.

Immigration is not an especially good index of business conditions. During the European war, statistics of immigration did not indicate the general trend of the total income, or spending power, of the United States. But although they are not a good index of the business cycle, we should study immigration statistics in relation to the supply of common labor. As a sidelight they are interesting.

Building permits have a bearing upon the amount of new building in prospect. They rise early in the cycle. Like stock market sales, the volume of bond sales and reports of new issues of securities, they foreshadow the future tendency of business. They precede the changes in the general prosperity of the country rather than reflect the current trend of incomes.

Charting Cycle Indexes

The student of charts is confronted with two confusing elements in attempting to judge the position of the business cycle from a graph of "actual statistics." The true trend of the business cycle is partially obscured owing to seasonal tendencies and the general upward drift commonly known as "normal growth." Statisticians, speaking professionally, call this growth the "secular trend." There are a number of ways of eliminating seasonal variation and normal growth. One method is to eliminate the seasonal variation separately and then "step down" the normal growth. A second method is to divide any one month by an average of that same month for a number of years preceding.

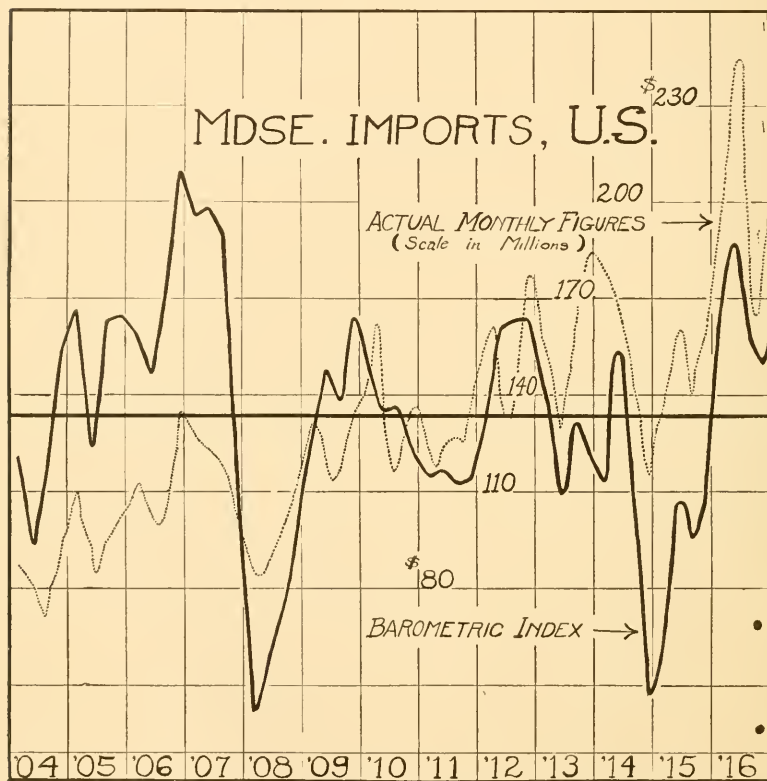
Corrected Cycle Indexes

In the following diagram of Imports we have employed a simple method of eliminating the seasonal and the secular tendencies, the "cyclical curve" being shown by the heavy line. It is clear that this corrected line is a better guide than the graph of actual imports (the light broken line).

We might go a step further and average the above "cyclical curve" of imports with similar corrected graphs of clearings, commodity prices and several other cycle indexes, arriving at a single, composite business Index. This combining process may be objectionable to those who wish to study the individual significance of each index, but it has the advantage of concentrating our thought upon the idea involved, namely, that *a business index should represent the fluctuations in the aggregate income, or spending power, of the community.*

We have stated above that bank clearings, foreign trade statistics and commodity prices are probably the best indexes of the trend of general prosperity. In the United States, however, it is permissible to include pig iron production and pig iron prices, and also unfilled steel orders, because the iron and steel business is a basic industry and has the special significance of reflecting the trend of new construction work. Perhaps statistics of bank clearings and foreign trade alone might answer

our purpose just as well as an average of six or eight items. However, if the secondary items are interesting in themselves, there is no objection to averaging them into a single Business Index, which might well be called an Index of Income, because



Actual and Corrected Statistics on Imports

The above chart shows that before the war the rate of interest in London and the Bank of France's ratio of cash to note circulation were important barometers for the speculator operating in Wall Street. These barometers will again be important when London resumes the gold standard of payment in business transactions. But for several years ahead the reserve ratio of our Federal Reserve Banks and time money rates in New York will probably deserve prime consideration. We are not independent of European influences, but we are now more self-sufficient in our finances than before the war and Europe looks to us for aid, whereas before the war we borrowed large amounts from Europe.

it represents the curve of the aggregate wages and profits of the community during the course of the business cycle. For an example of an index of General Business, or General Community Income, the reader is referred to in the Text, "Measuring and Forecasting Business Conditions," where the subject of combining statistical graphs into one composite index is dealt with constructively by Professor Persons.

Having now pointed out the specific indexes which guide us in observing the general direction of the cycle, the work in this chapter has been completed. A more important subject is now ahead of us, viz., what causes the fluctuations of the business cycle? In raising this question, we suddenly realize that the above chart does not forecast anything. It merely reveals whether business is above or below normal. The most important consideration now is to arrive at a method of predicting whether at any time the business index will ascend or descend.



CHAPTER IV

THE NORMAL CYCLE

Normal Cycle Defined

What is the "Normal Cycle"? In actual experience no cycle is normal. Accidents always happen to disturb the normal trend. Nevertheless, there always is an underlying trend, and the idea of a normal cycle has a very practical value in helping us look beyond the temporary periods of irregularity.

Let us regard the normal cycle as consisting of fluctuations above and below a horizontal normal line, the second half of the cycle declining exactly in proportion to the forward movement of the first half, and the area of prosperity above the normal line being exactly equalled by the period of depression which develops below the line.

In every cycle such a condition of regularity would develop if it were not for the accidental cross-currents which disturb the normal trend.

Cause of the Normal Cycle

The underlying trend of every cycle — the normal trend — is caused by a single factor. This factor is *the flow of the loanable funds of the banks, to and from the borrowers in a community*. When loanable funds are abundant, they are freely lent. The borrowers disburse them for merchandise and wages. The flow of funds from lenders to borrowers leads directly to rising prices and higher wages.

Reversely, when bank credit is over-extended and lenders exact higher interest rates, borrowing is discouraged. There is a general slackening in the transfer of loanable funds from lender to borrower. The borrower reduces purchases of commodities and curtails employment.

Our method of forecasting the business cycle is simplified if we start with this simple explanation of the cause of the normal cycle. Free lending breeds prosperity. Depression results from restriction of credit. To forecast the underlying direction of the cycle it is only necessary to ask and answer the two following questions:

1. Can commercial loans expand further? If so, the normal trend of the cycle is still upward.
2. Must commercial loans be restricted? If so, the normal trend of the cycle will turn downward.

Loanable Funds

Our starting point in the study of loanable funds is the statement that in normal times the central banks in the money centres of the world, especially London, Paris, and New York, should keep about half of their assets in gold. As a guiding principle we may say that when their assets are half gold and half interest-bearing paper, they are in normal condition. Let us picture this condition in a table showing the two principal items of a central bank.

Normal Condition of a Central Bank		
Loans	\$2,000,000,000	50%
Gold	2,000,000,000	50%
Assets	\$4,000,000,000	100%
(Ratio of gold to loans, 100%)		

With half the assets in gold, interest rates are usually normal. There is room for business to expand. Let us suppose that business does expand, and that the increase in the volume of trade with prices rising causes loans to mount higher. What then will be the proportion of assets in gold? As a first step, let us assume that loans have increased 25 per cent, or \$500,000,000. Will the bank statement be as follows?

Expanded Credit Position. (Gold assumed stationary)

Loans	\$2,500,000,000	55.6%
Gold	2,000,000,000	44.4%
Assets	\$4,500,000,000	100%
(Ratio of gold to loans, 80%)		

No. An assumption that gold will remain stationary while loans increase is not true to life. It would ignore the actual dynamics of business activity. In actual business experience, the gold reserves would have decreased while loans were expanding. The above table should be corrected to read as follows:

Expanded Credit Position. (Gold reduced)

Loans	\$2,500,000,000	58.1%
Gold	1,800,000,000	41.9%
Assets	\$4,300,000,000	100%
(Ratio of gold to loans, 70.2%)		

International Influences

The explanation of the loss in gold is found in the fact that trade is international. When trade expands and loans increase, some of the funds obtained by manufacturers will most certainly be used to buy imported goods. For instance, in the United States the Central Leather, American Woolen, United States Rubber and Manhattan Shirt companies respectively must import hides and wool from South America and Australia and rubber and silk from the Orient. Then, during prosperity, the imports of sugar from Cuba, coffee from Brazil and precious stones from South Africa increase. Gold must be sent to pay for these imports, or at least that part of them not balanced by shipments of steel, copper, cotton and other American products.

But this loss of gold cannot continue indefinitely. That is,

the loss of gold must be stopped if the gold standard of payment is to be maintained. Of course, in an emergency, it is sometimes found necessary to suspend gold payment and ship an indefinite amount of gold out of the country. For instance, during the Napoleonic wars the British government shipped so much gold to Austria to finance the armies fighting against Napoleon that the Bank of England discontinued paying its obligations in gold. In case of famine arising from domestic crop failure it is sometimes necessary to make abnormal shipments of gold to foreign countries to procure food. These two circumstances — famine and military necessity — can force the governors of a central bank to depart from the ordinary rules of bank management.

Increasing the Gold Reserves

In discussing the *normal cycle*, however, we may assume the absence of famine and military necessity. Normally, it is desirable to maintain the gold standard, and to do this, after credit expansion has proceeded to the point where the gold reserves of the central bank have fallen to an uncomfortably low figure, the central bank normally does two things:

1. It restricts lending, and
2. Increases discount rates to 6, 7 or if necessary to 8 or 10 per cent.

Either one or both of these policies will cause congestion in the security markets and precipitate deflation of prices. Gradually loans will decrease. There will be less gold needed for remittances between countries to settle trade balances, as soon as trade slows down and commodity values fall. Gold will accumulate in the central banks. These banks will be restored to a normal condition, in fact, their gold reserves become abnormally large during a period of trade depression. For instance, in the following table, where gold holdings are larger than the loans, the supply of loanable funds may be adjudged to be above normal.

Credit Deflated; Loanable Funds Abundant

Loans	\$1,800,000,000	45%
Gold	2,200,000,000	55%
Assets	\$4,000,000,000	100%
(Ratio of gold to loans, 122.2%)		

When the bank statement reaches this point, the banks "breathe easily," and there is a fall in interest rates which favors a revival of financial activity.

Cause and Effect

The business cycle, then, is the direct resultant of the flow of loanable funds.

The motor which impels the cycle forward is the supply of bank credit. The supply of loanable funds is our "cycle gas." As funds are put into circulation, they swell wages and profits. The Business Index rises. The index of loanable funds correspondingly declines. When the pumping of new funds into commercial enterprise is at an end, wages, prices and profits come to a dead standstill. Then lenders withdraw their funds gradually from the borrowers. Payrolls grow smaller. The aggregate income of the community declines. The curve representing the cycle falls below normal. But meanwhile there is an increasing accumulation of loanable funds. We find that the supply of funds is well above normal by the time the cycle touches the minimum of depression. When the supply of "cycle gas" is once again abundant, the normal trend of general business soon turns upward marking the beginning of a new cycle.

This completes our statement of the ideal concept of the "normal cycle." The practical problem now is to find, in the actual world of finance, the statistical barometers which will enable us to state accurately whether the supply of loanable funds is abundant or exhausted, or in some intermediate position. Needless to say, no one statistical barometer tells the whole story. Not all financial areas register "low barometer"

or "high barometer" simultaneously. There are local differences in the United States, and very frequently the financial resources of Paris, Berlin, and London exhibit differing degrees of abundance or depletion. Then, we must always consider the flow of gold toward South America, Asia and other parts of the world. The idea of a world reservoir of loanable funds is a simple concept in the abstract, but *in actual practice, a careful survey is necessary to grasp the situation as a whole.*

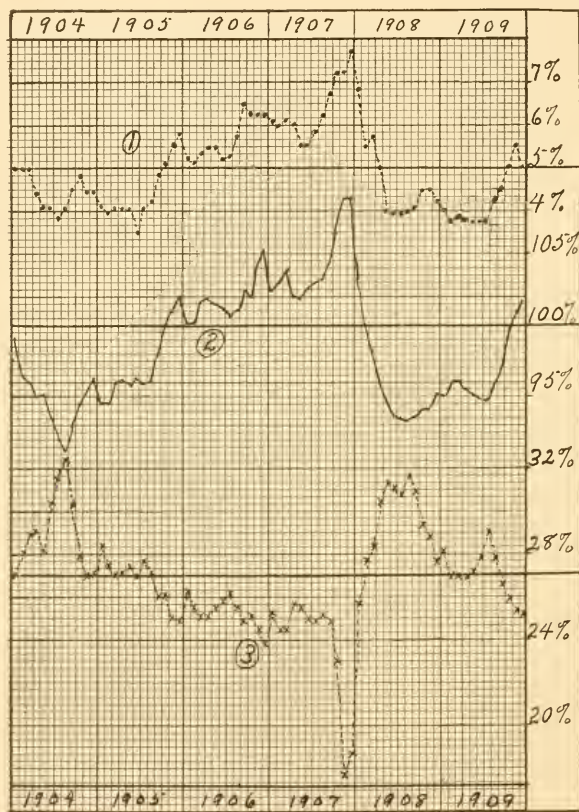
We find, however, that indexes of money conditions in New York, London and Paris usually satisfy our requirements for mechanical barometers. Conditions in the rest of the world are visualized in the financial barometers of these three cities to a large extent. To illustrate this point let us make a special study of the cycle culminating in the Panic of 1907.

New York Financial Barometers

What are the best financial barometers of conditions in Wall Street? Perhaps the average investor would care little about a mechanical index based on statistics if he could lunch at the Waldorf Astoria with a prominent New York banker and derive his information regarding the financial outlook during the course of the noonday conversation. In our opinion, however, less could be gained from such a conversation than can be learned from an analysis of the reserves, loans and deposits of the banks in the New York Clearing House which are published every week. We not only have the statistical information which the bankers possess, but every day in the week we can ascertain the opinions of the bankers themselves regarding their own statements. If a banker thinks his balance sheet is growing worse he will increase his discount rate. If he has on hand an abundant surplus of loanable funds, a very low rate of interest, (published in the newspapers) will give us positive evidence of the fact. Thus, by following the changes in the items of the balance sheets of the banks every week and the interest rates quoted in the papers every day, we can know accurately what the banking situation is and what the bankers think about it.

Conditions 1904-08

Let us put this system to a practical test during the period from 1904 to 1908. We shall select two items from the New York bank statement, namely, the percentage of loans_{to} de-



Money Conditions in New York

posits and the ratio of reserves to loans. These two items tell us the condition of the banks. Having plotted these statistics on a chart, let us add a line showing interest rates in New York. We have now a picture of money conditions in New York as

shown in the diagram on opposite page. The interpretation is that as there is a rise in the percentage of loans on deposits, and a fall in the ratio of reserves to loans, the banks elevate interest rates to check borrowing. Reversely, when reserves rise and the ratio of loans to deposits falls, interest rates are lowered, as in 1908.

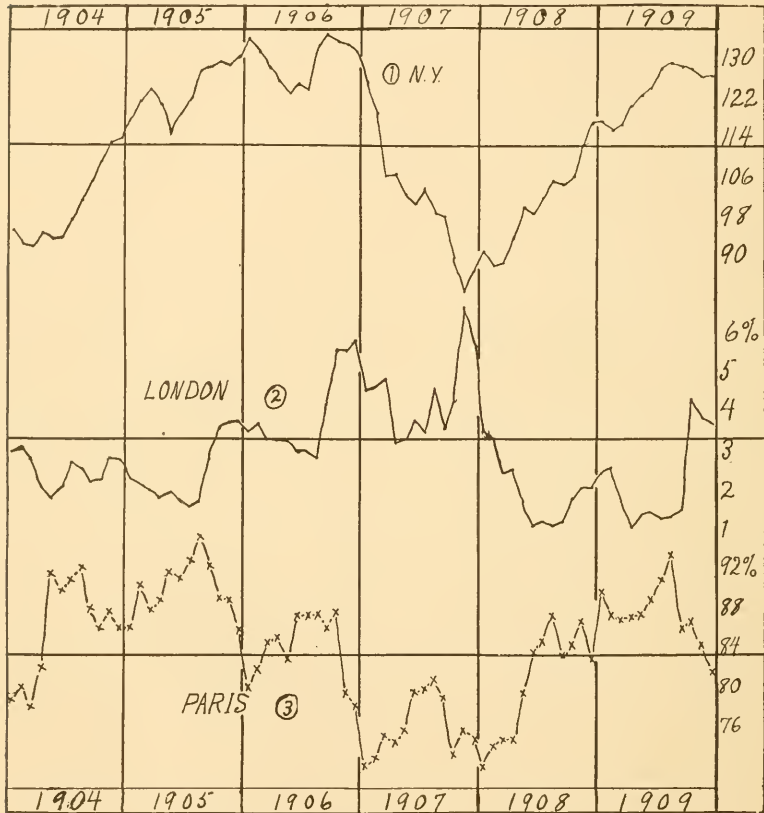
Barometers of European Financial Conditions

Meanwhile, what is the situation in Europe? And what indexes shall we select from London and Paris? In the period 1904-08 the important indexes in London were the cash reserve of the Bank of England and interest rates in London. In Paris, the chief barometer was the condition of the Bank of France. Paris held more gold than London, hence the importance of the Bank of France as a source of assistance to London in time of need. But London held more American securities than Paris, hence the rate of interest in London decisively affected the prices of American securities. In charting European barometers, then, let us plot the ratio of reserves to note circulation of the Bank of France at the bottom of our chart, and immediately above it the official bank rate of the Bank of England.

Now, we can add a graph of prices of American stocks and we are ready to judge the effect of European conditions upon the New York Stock Market during 1904-08.

Our first impression from this diagram is that activities in Wall Street move very promptly in discounting conditions in Europe. For instance, when Paris and London reflected easy money in 1904, the stock market advanced enough during 1904 and 1905 to discount all of the prosperity which was to develop during 1906-07. Then in 1907 the stock market declined more than enough to measure the depression which developed during 1908. In the latter year, even before Paris was financially normal, Wall Street proceeded to anticipate the outlook for improvement abroad. The resources of the Bank of France did not entirely recover until 1909, but by the time financial conditions were approaching normal in Europe, the New York Stock Market had recovered most of the loss suffered during the Panic of 1907.

Our conclusion, then, is that although conditions in Europe had a fundamental relation to speculation in Wall Street during 1904-08, the American investor had to be alert and foresee



Stock Prices and Money Conditions Abroad

This chart shows the relation between the prices of stocks in New York and financial conditions in London and Paris.

what was going to happen in Europe if he wished to profit from his knowledge of foreign conditions in actual stock market operations.

After-War Barometers

It is appropriate at this point to suggest that the American investor should change his point of view in analyzing the financial conditions of Europe owing to the fundamental changes wrought by the war. The prime consideration in 1907 was that England owned over four billion dollars of American securities. British investors would buy American securities when interest rates were as low as 4 per cent, but they would sell back to New York whenever London interest rates were 6 or 7 per cent. Since 1914, however, perhaps over half of the American securities formerly owned in England have been returned to the United States. "Foreign selling" is not such an important factor as it was a decade ago.

Another point is that a rise in the bank rate in London is no longer a signal for the selling of American securities by British investors. That process is obsolete because England is now on a paper money basis. The rate of sterling exchange is the important barometer because when sterling exchange is low and dollars in London are correspondingly high, English investors can realize a handsome price in London by selling American securities.

The rule is that a drop in sterling exchange induces English selling in New York, whereas a rise in sterling lessens the pressure upon the New York market. This applies, moreover, mainly to bonds, as foreign holdings of Steel Common and railway stocks are no longer formidable.

Another change in the point of view is that London is no longer the central barometer in the investment situation. For some years to come London will be more affected by conditions in New York than the contrary. That is, whenever money conditions are easy in New York there will be an increase in lending to England and France. This increased lending will stimulate exports of American goods. This will be favorable to American industrial stocks.

Still another important point in judging the money market is that we no longer turn to the weekly condition of the New

York Clearing House Banks as the most important financial barometer in Wall Street. The central barometer for the entire world is the combined statement of the twelve Federal Reserve Banks. However, the statement of the New York Reserve institution has a more direct bearing upon the stock market than that of the Reserve System as a whole. The New York Reserve Bank is a bell-wether for the seventy or more members of the New York Clearing House. Moreover, the Reserve Bank in New York bears the brunt of a crisis in its early stages. It is the most important stock market barometer.

On the other hand, we should not ignore the banking situation in Chicago or San Francisco entirely. Our method should be to follow closely the situation in Wall Street, and then studiously compare conditions in London, Paris, Philadelphia, Chicago and other American centers.

Principle Restated

To recapitulate, the supply of loanable funds is the most important single factor in determining the trend of business conditions. The scientific method of forecasting business conditions is to study loanable funds as the keystone in the arch and then take up separately the cross-currents, such as gold production and bank management, and ask the question, "How will each one of these cross-currents affect the supply of loanable funds in the immediate future?"

Practical Application of the Scientific Method

For instance, at the end of 1919 it appeared that the normal cycle had nearly culminated. On the assumption of a normal banking policy, there was little chance of any further inflation of credit. Sound banking policy demanded immediate credit restriction and early price deflation. A scientific forecast at that time then would have been:

"The culmination of the cycle is at hand and the underlying trend from now on will be downward, unless extreme irregularity is produced by some cross-current."

The investor would then proceed to consider each cross-current separately as follows:

1. "Can gold production cause further inflation?" The answer in December, 1919, was "No." Gold production was subnormal.
2. "Can crop conditions cause further inflation?" The answer was "No." It was known that the acreage for the next winter wheat crop was less than the preceding year.
3. "Can politics cause further inflation?" The answer was "No." Unless Congress might authorize new loans to Europe.
4. "Can inflation of credit in England or France cause prices to rise in the United States?" The answer was "No," as foreign inflation would merely cause the foreign exchanges to drop, and this would depress prices in America.
5. "Can the Federal Reserve Board permit further inflation?" Here the answer was "Yes, to some extent." But to do so it would be necessary to violate the intention of the regulations established by Congress in the original Reserve Act. Gold reserves were already low and interest rates were approaching abnormal levels.

This method of surveying a situation is practiced by the most able and farsighted bankers in Wall Street in formulating their financial policies.

What Scientific Method Means

Our conclusion is that a forecast formulated by this method will always be valuable. In the above case, the underlying trend, as determined by the supply of loanable funds, had reached its crest and could not continue upward except by further loans to Europe or excessive credit extension by the Reserve Board. It is true that these cross-currents were important uncertainties. However, after eliminating the minor factors and

giving proper weight to these two major uncertainties, the investor was in a position to arrive at an approximately perfect judgment of the outlook? His future problem was to keep in touch with the banking situation and make mental allowance for whatever changes in crops and politics might occur.

Scientific method in forecasting consists in establishing a principle for determining the trend of the normal cycle in any situation, and then, in a given situation, in according due weight to such cross-currents or accidental factors as can disturb the normal trend.

Summary of Chapter

The causal influences which govern the fluctuations of the business cycle are of two kinds: (1) accidental and (2) normal.

The normal, or regular, cause is the supply of loanable funds. It is operative in every cycle. If it were the only influence to consider, each succeeding cycle would be just like all of its predecessors. We know, however, that no two cycles are exactly alike. The reason is that there are always accidental cross-currents operating to produce irregularity. The nature of these cross-currents is the subject of the next chapter.



CHAPTER V

THE "CROSS-CURRENTS"

Cross-Currents of Two Kinds

The cross-currents which disturb the normal trend of the cycle are of two kinds:

1. Those governing the primary moves of the cycle. These "big swings" continue for a year or two.
2. Those which influence the short periods of irregularity, or seasonal fluctuations, which are of only three or four months' duration.

Among the cross-currents of the second class, whose influence as a rule extends over a period of only two to four months, are court decisions, some legislative acts, diplomatic disputes, important elections, the outbreak or termination of a war, and minor crop changes. The discussion of these short swing influences really belongs in the Text on "The Search for Bargains," and not in the present chapter, for here we are primarily concerned with analyzing the influences which shape the underlying trend of the primary moves of the cycle.

Among the cross-currents which fundamentally govern the duration of periods of prosperity and depression, the following are the most important:

1. Gold production.
2. Inconvertible paper money.
3. Unsound bank management.
4. Crop changes of cardinal importance.

Gold Production

The important thing to consider regarding gold production is whether the world supply of gold, especially the part used for bank reserves and for monetary circulation, is increasing faster

than the physical volume of trade. The rules for judging the relation of gold production to the trend of business are:

1. If new gold is coming into circulation faster than the annual demand for the metal for monetary purposes, the business cycle itself will show a decided upward drift. That is, after the cycle has culminated and the crisis has been followed by a period of depression, it will be found that prices, wages and profits will not be as low at the end of the cycle as they were at the beginning. The upturn of a new cycle will appear with little delay.
2. If gold production is not increasing fast enough to satisfy the demand for monetary purposes, however, prices, wages and profits at the end of the cycle will be lower than at the beginning. It will take longer to accomplish the readjustments necessary to put business on a sound basis. There will be tedious delay in planning for the upturn of a new cycle.

Test of Degree of Gold Production

But what indicates whether gold production is subnormal or excessive? It would be difficult to answer this question, but the relative amounts of gold and paper in the assets reported by the banks indicate the progress of readjustment. When the banks have too much paper and too little gold, a cycle cannot begin. There must be either a reduction of paper assets or an accumulation of gold reserves, or both, until the distribution of assets shows a normal proportion of gold. If gold accumulates rapidly and becomes abundant, a new cycle can begin without deflation of paper assets, even though the banks may have accumulated an unusually large supply of paper in their assets during the preceding period of prosperity.

Let us adduce historical illustrations. Probably the most rapid periods of credit inflation in history, except in war time, occurred immediately preceding the panics of 1857 and 1907. Nevertheless, within a year after each of these most frightful

panics, the banks were abundantly supplied with gold because so many hundred millions of dollars were being added every year to the world's gold supply. It was not necessary to deflate credit for any length of time after these panics. On the other hand, after the panics of 1825, 1837 and 1893, the world's annual production of gold was not sufficient to enable the banks to go ahead without a prolonged period of tedious deflation.

It will always be a matter of grave concern whether a crisis is to be followed by a long or a short period of depression. That is why the world's gold supply must be given thoughtful consideration in judging the long-range trend of affairs. The particular point of concern is its relation to the supply of paper money in circulation.

Inconvertible Paper Money

In 1914 this factor did not deserve much consideration. Most countries were on a gold basis. In 1920, however, it was a more important factor than either crops or gold production. For instance, if England were to decide to turn about face and authorize an unlimited increase in her paper currency during the next five years, prices would remain higher than is actually going to be the case. England would then make little demand on the United States for gold and American business men could expect very little deflation in the near future. On the other hand, if the British Parliament authorizes a rapid contraction of paper money, the deflation of commodity prices will be hastened and America's gold reserves will be subjected to an increasing strain.

Historical illustrations of the influence of paper money deflation upon the trend of the business cycle are found after the Napoleonic Wars, after the panic of 1837 and after the American Civil War. In each case there was vacillating procrastination before the politicians decided to deflate, but the ultimate effect upon business was the same in every case. These three deflating periods, featured by a transition from a paper money to a gold basis, stand out as the most conspicuous depressions in history. They covered respectively the years from 1819 to 1822, from

1839 to 1843 and from 1875 to 1879—all periods of three or four years. This suggests that we may expect quiet business while England and France are seriously taking action to get back to a gold basis.

Unsound Bank Management

In most business cycles it is not necessary to deal with unsound bank management as an important factor. There have been several cases during the past century, however, when the upswing of the cycle was entirely due to disregard of sound banking policy. Excessive lending by bank officials was responsible for the bubble which developed between 1815 and 1819 in the United States. It was again in evidence in the United States between 1830 and 1839. During the eighty years from 1840 to 1920, however, unsound bank management does not figure in the development of credit bubbles to any great extent in the United States.

In England there was excessive lending from 1834 to 1836 and from 1862 to 1866; in France, from 1878 to 1882; in Argentina, from 1887 to 1890.

The factor of bank management is a most important consideration in the United States, now that the Federal Reserve Banks are in operation. In fact, the inflation during 1919 and 1920 would have been largely checked and avoided if the Federal Reserve Board had not been guilty of unsound management in permitting excessive loans to be made by the Reserve Banks at a rate of interest below the prevailing market rate.

Crops

During the recent war the influence of the crops was somewhat overshadowed by the financial inflation which was compelled by political necessity.

During the next five years, moreover, the credit policy of the Reserve Banks and the attitude of the British Government toward reducing inconvertible paper currency may deserve more consideration than crop conditions. This will be true if the size

of the crops is about the same from year to year. It is only when there are sudden changes in the size of the crops that they tend to cause irregularity in the trend of the cycle.

Nevertheless, the size of the harvests is a factor which must never be ignored. The cost of living depends upon the price of food. When food prices are high, there is only a small margin of income available for the purchase of clothing and furniture and for investment in new enterprises. Reversely, when food is cheap there is a big surplus available from the aggregate income of the community for other living expenses and for investment. This investment surplus stimulates trade and speculation. Large crops swell the volume of railroad traffic, increase the profits of the railroad stocks, and beget large orders for equipment, rails, and structural steel. The increased employment in the factories benefits trade, wholesale and retail.

Historical Verification the Next Step

Having considered the cross-currents which influence the intensity and duration of periods of prosperity and depression, our next step is to review the most notable financial crises of the past, in order to observe in actual business experience the operation of the foregoing factors.



CHAPTER VI

RESUMÉ OF HISTORY OF PANICS

1720. The Bursting of the Mississippi Bubble in France and the South Sea Bubble in England.

The inflation of the first half of the cycle arose from an expansion of loans on stocks and realty in France by the Banque Royale, managed by John Law. The crisis developed normally. Excessive bank note circulation drove gold out of the country and the gold reserves of the Banque Royale suffered a drain. To protect the bank, loans were restricted. Prices slumped and the paper money became discredited.

1763-64. Panic in Amsterdam, Hamburg, Frankfort, and London at the end of the Seven Years' War.

Banks had issued currency in exchange for war securities, a rise in prices attending the inflation of the currency. When buying of war supplies ceased, inflation of credit culminated. Prices fell and banks restricted lending, fearing to make loans against depreciating values. The inflation during the war was abnormal, as military necessity caused the Bank of England to continue increasing loans even after the point where wise management normally would have restricted credit and forced a crisis.

1793. Outbreak of the Anglo-French Wars caused run on the banks in England.

For several years previous, price inflation and commercial expansion had developed normally, with loans of the Bank of England expanding. The crisis period was very abnormal owing to the grave political uncertainties in the outlook. The British Treasury came to the relief of merchants when the Bank of England refused.

1797. Napoleon's attempt to invade England caused a run on the banks.

The Bank of England suspended payment (not resuming until May 1, 1821). This crisis was featured by abnormal cross-currents. It was not a normal crisis marking the culmination of a cycle. Inflation went right on in connection with war financing until the Peace of Amiens in 1802.

1810-11. Napoleon's blockade in Europe and Jefferson's embargo in the United States prevented normal sale of British manufactures.

The English banks loaned credit to carry British merchants who lost their markets, loans rising conspicuously during 1809. But goods glutted the markets, prices fell and industry became stagnant during 1810-11.

1814-15. End of Napoleonic Wars followed by decline in prices and collapse of weak banks.

Europe was impoverished and could not buy the world's supply of goods. The chief cross-current was a collapse of credit. On the Continent, paper currencies became largely worthless, necessitating the use of gold to buy goods. There was little of it.

In 1919 there was a sharp contrast. Currencies were depreciated in Europe, but they did not become utterly worthless, and hence prices rose instead of falling promptly to a gold basis, as was the case after the Napoleonic Wars. Then, with a multitude of small banks failing, price deflation promptly followed the disappearance of worthless currencies from circulation.

In 1919, with paper currencies largely secured by government bonds everywhere, there was no credit collapse, no sudden disappearance of paper money from circulation, and hence not the prompt deflation of prices witnessed in Europe in 1815 after Leipsic and Waterloo. Orderly deflation came in 1920.

In 1815, moreover, there was centralized political control in Europe, and kings and emperors were able to keep the masses

of the people efficiently engaged in productive processes, whereas in 1919 a shortage of goods was conspicuous, partly because the masses had seized control and looked to paper money instead of economic productivity as the means of livelihood.

1819. Crisis in America and England.

Heavy loans to France during 1817-18. Crop shortage in England in 1818. Gold exported for grain and to borrowing countries. Loss of gold precipitated banking crisis. Depression intensified by act of Parliament in 1819 requiring British banks to resume gold basis of payment by 1821.

1825. Panic in London following extravagant speculation.

Credit exhausted by loans to foreign countries. Crop failure in England in 1824 necessitated export of gold to buy grain.

1837. Panic in the United States.

Panic marked culmination of speculation in land, banks, railways and commodities. Chief feature in 1837 was a reduction of British commercial loans to American merchants.

1839. Banking Collapse in the United States.

Precipitated by withdrawal of credit from America by the Bank of England. The latter became weak after exporting gold to buy wheat from continental Europe following crop failure in England.

Collapse of credit in America was needed to remove excessive supply of currency, as deflation had been avoided in 1837 by suspending payment, whereupon more currency was issued, especially in the South. New York had deflated in 1838 and was strong financially in 1839 when Philadelphia banks collapsed. Financial leadership passed to New York.

1847. Panic in England following railway boom.

Precipitated by export of gold to buy wheat. English crops had failed in 1846.

1854. Panic in the United States upon outbreak of Crimean War.

Credit restriction in London exerted financial pressure upon United States, where poor wheat crop and epidemic in cotton belt, delaying cotton exports, were adverse factors aggravating the crisis. Panic marked culmination of speculative boom in railways and banks.

1857. Panic in Germany, France, England and the United States.

General exhaustion of credit. The crisis developed normally, with excessive paper currency draining gold from the banks.

1866. Panic in London, Black Friday, May 11.

Big failures on account of tight money and declining security prices. New banks formed under the Companies Act of 1862 had over-expanded. The position of one of them (Overend Gurney & Co.) became prejudiced by a court decision, invalidating railway securities in its possession. Suspicion of new banks became general, and Bank of England tended to hold aloof, permitting numerous failures.

1869. Black Friday in the United States, September 24.

Jay Gould and other railway speculators embarrassed by decline in gold premium after accumulating gold in attempt to corner the supply.

1873. Panic in Austria, Germany and the United States following railway boom.

Tight money caused railway securities to decline, involving failures. Inflation during 1871-72 was stimulated by ending

of Franco-Prussian War and the wholesale investment of French indemnity funds. Speculation was absent in France and greatest in Central Europe and the United States during the first half of the cycle.

1882-84. Crisis in France following over-speculation.

Exhaustion of credit was in evidence in France in 1882, but not in America until 1884, when trade reaction, resulting from European crisis of 1882, exerted pressure on the New York money market, a panic in railway stocks occurring in May, 1884.

1890. Baring Panic in London.

Precipitated by decline in Argentine securities. Poor crops and revolution in Argentina were responsible for the slump in security prices in the London Market. Baring Bros., largest dealers in Argentine securities, became embarrassed. Liquidation of their affairs required three years.

1893. Panic in the United States.

Gold driven from the country by fear that "Free silver" coinage might become national monetary policy and involve abandonment of gold standard. Foreign investors in fright returned American securities to New York and took away gold. Important contributing influences were the general commercial reaction in Europe following the Baring crisis of 1890 and a short wheat crop in the United States in 1893, which reduced trade requirements for the paper money being injected into the country's circulation by the Treasury under the Silver-Purchase Act of 1890. The silver-secured paper notes were redundant because they were excessive in supply, and the drop in currency requirements on account of dull trade in 1893 made this redundancy the more aggravating and conspicuous. Capital took flight in fear of a change from the gold to a silver standard of paying obligations. Stocks and bonds were disposed of; gold was hoarded.

1899-1900. Crisis in Germany, France and Russia following period of expansion.

No crisis in America, where prosperity was sustained, owing to large exports to Europe and an abundance of bank reserves. The latter was partly due to the expanding gold production in the Klondike, and partly to the fact that the "free silver" question in the United States seemed definitely settled by the election of McKinley in 1896 on the gold standard platform. After 1896 the conditions preceding the panic of 1896 were reversed. The stoppage of silver currency inflation caused gold to return to the banks in growing volume. As confidence grew, moreover, Europe repurchased American securities, remitting cash. Then during the Boer War, 1898-1902, England bought war supplies regardless of the crisis in Central Europe, so that New York did not have to deal with financial pressure from London for a long while. Central Europe experienced crisis and reaction during 1900-1902. With the ending of the Boer War in 1902, however, war inflation in London ceased and normal tendencies returned.

1903. Rich Man's Panic in New York.

Banks, weakened by gold exports, suddenly became unable to carry load of new securities. Financial retrenchment and readjustment in London, following the Boer War, was a contributing factor in the financial stringency in New York.

1907. World Crisis.

Exhaustion of credit followed a period of inflation and over-speculation.

1914. Outbreak of war caused run on the banks in the United States.

Trade in the United States was on a sound basis; after a readjustment period of five months, industry recovered.

1921. European crisis following stoppage of American Loans to England and France.

Crisis in the United States reached after continued inflation of loans in face of gold drain to Asia and South America. Situation eased by free lending by Reserve Banks. The usual post-war deflation followed a decline in exports. Prices dropped sharply and most all industrial corporations suffered heavy inventory losses. Purchasing power was severely curtailed.

Watching the Trend of Affairs

Conditions in business are complex, and the business man has a good deal to do to keep in close touch with matters within his own organization. But matters outside—such as currency inflation, condition of bank reserves, Federal Reserve Board policies, foreign exchange rates, etc.—essentially concern him, and when investing or speculating, the business man cannot afford to remain ignorant of these basic elements in the business cycle.

Wide-awake business men agree already with what has just been said, and desire most of all the best means, and methods of correct reasoning, for interpreting the business cycle. What has been said in the present Text, it is hoped, will enable the business man more accurately to do this.

During the next five years the most important cross-current will be the progress toward currency deflation in Europe. The rules for interpreting the "normal cycle" will still apply, but broad vision will be necessary in forming a correct judgment of the future. We will try to help in this by further detailed explanation in the Text, "The Search for Bargains." While it is the closing Text it may well be read here, if the client desires.

TEST QUESTIONS

"BUSINESS CYCLES"

The test questions which are unstarred can be answered directly from the Text discussion. You will find them helpful for purposes of review.

The questions which are starred call for original thought, the ability to apply the knowledge gained from the Text to the solution of new problems. Answers to these questions are enclosed for consideration *after* your own solutions have been drawn up.

1. Describe the various periods of a business cycle.

*2. "One of my friends tells me that cycles run in ten-year and twenty-year periods, just as regular as the tides. Why don't everybody get on to this and buy or sell according to the dates as they come? L. J. K." What answer would you make to this?

3. What is the chief factor which operates to cause the normal cycle? What statistical indexes enable a person to watch the operation of this factor?

*4. "Stock prices will have to go up," said a trader. "Everything else is inflated, why should not stock prices be inflated too?" Is this reasoning correct?

*5. Are corporation profits larger, or smaller, during a period of rising prices than a period of falling prices? Why?

6. Show how, by raising questions concerning cross-currents, one sets about formulating his financial policies.

7. Specify various items which, as cross-currents, throw out of order the course of the normal cycle.

8. In what period of the cycle are we now? (Note the various statistical indexes, and "The Bulletin").

9. Name some of the panics which have occurred since 1720, and specify certain of the elements which appear to be prominent in these panics.

*10. "Why did you leave out the gold-mining stocks in 1918?" asked a subscriber. "Of course operating costs are high; that is true of all companies and not only these gold-mining companies. If you favor at this time industrial stocks, why not these?" What answer would you have made to this question?

ANSWERS TO STARRED QUESTIONS

"BUSINESS CYCLES"

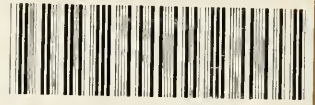
*2. In the Text we have discussed the normal cycle and the cross-currents which cause this normal cycle to vary. You will see from this discussion how impossible it is to predict exactly what is going to occur in the future, with dates. What can be done, however, is to keep under close observation the essential factors, along with the cross-currents, and keep revising one's forecasts as new factors enter in or old factors change in their relative power. The other method, of going by dates and of dividing industrial history into mechanical periods, is arbitrary and will not secure you results in the long run. The method just cited, and which is described in the Text with some detail, is based upon sound reasoning and will prove serviceable.

*4. There are two errors in this reasoning. First, since stocks tend to anticipate inflation of commodity prices and business profits, it may be presumed, if "everything else is inflated," that stocks have previously passed through an inflation period. Second, when everything else is inflated, there is an abnormal strain upon bank credit. In such a situation, as outlined in the Text, bankers reduce loans on securities in order to finance commercial borrowers. This inevitably forces stocks downward; stocks suffer that merchandise values may be sustained.

*5. They are larger during a period of rising prices due to the fact that prices secured for the company's commodities advance faster than its costs in general. Likewise, when falling prices ensue, the company has to meet a lower sales price for its product, which product, however, has been produced from materials bought at old and higher figures and at a relatively high wage cost.

*10. The fact that their product, gold, can be coined into, rather than sold for money, renders the action of gold-mining stocks different from those of other companies. Because the price of gold thus is fixed and neither goes up or down with other prices, gold stocks are among the worst in times of prosperity and among the best when business is depressed. They have done well, 1921-22. There is always a market for gold, and labor can find employment in the gold mines when other industries are idle. Hence, while industrial concerns, able as they are to advance their selling prices as the costs of producing their commodities rise, proved to be excellent purchases in a period of inflation like 1918-19, the same would not hold true of gold mining stocks.

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